



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

CARDIFF PORT SANITARY AUTHORITY,

FOR THE YEAR 1905.

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Printed by Order of the Sanitary Authority.

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CARDIFF :  
WESTERN MAIL, LIMITED.

1906.

# Health and Port Sanitary Committee.

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„ W. H. RENWICK, J.P.

„ JOSEPH STANFIELD.

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Medical Officer of Health's Department.

*Medical Officer of Health :*

EDWARD WALFORD, M.D., D.P.H.

*Chief Inspector of Nuisances :*

DAVID JENKINS, CERTIFICATE ROYAL SANITARY INSTITUTE.

*Assistant Inspectors :*

S. J. HOLBOURN, CERTIFICATE ROYAL SANITARY INSTITUTE.

D. A. JENKINS.

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A. J. E. SCOTT, CERTIFICATE ROYAL SANITARY INSTITUTE.

*Clerk :*

F. HOWELL.

# CARDIFF PORT SANITARY AUTHORITY.

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TOWN HALL,  
CARDIFF,

*February 1906.*

## TO THE CHAIRMAN AND MEMBERS OF THE CARDIFF PORT SANITARY AUTHORITY.

GENTLEMEN,

I have the honour to submit to you my Annual Report for the Year 1905.

The Port Sanitary District of Cardiff was constituted in the year 1882, by a Provisional Order of the Local Government Board, which was subsequently confirmed by Parliament.

In this Order the Boundaries of the District are defined as follows:—

“So much of the Port of Cardiff as lies between the River Rumney and  
“Lavernock Point; together with the waters of the said Port within  
“such limits, and the place for the time being appointed as the Customs  
“Boarding Station for such part of the said Port, and every other place  
“for the time being appointed for the mooring or anchoring of ships for  
“such part of the said Port, under any regulations for the prevention of  
“the spread of disease issued under the authority of the Statutes in that  
“behalf; and the watersides, docks, basins, and creeks of and belonging  
“to such part of the said Port.”

By a Provisional Order, dated 27th July, 1893, the limits of Jurisdiction of the Cardiff Port Sanitary Authority were extended, and on the 15th September, 1894, an order of the Board was issued permanently constituting the Authority. This Order came into operation on the 9th November, 1894, and contains the following provisions:—

### SECTION I.—CONSTITUTION OF PORT SANITARY AUTHORITY.

ARTICLE 1.—This Order shall come into operation on the Ninth day of November, One Thousand Eight Hundred and Ninety-four, unless it shall become Provisional, and until this Order comes into operation the said Order dated the Twenty-seventh day of July, One Thousand Eight Hundred and Ninety-three, shall continue in force.

ARTICLE 2.—The Mayor, Aldermen, and Burgesses of the said Borough of Cardiff, acting by the Council, as the said Urban Sanitary Authority, shall be permanently constituted the Port Sanitary Authority for the part of said Port of Cardiff, hereinafter described.

ARTICLE 3.—The Port Sanitary Authority may from time to time appoint Committees consisting of Members of such Authority for the exercise of any powers which, in the opinion of such Authority, can be properly exercised by Committees, but the acts of every such Committee shall, unless otherwise directed by the Port Sanitary Authority, be submitted to such Authority for approval.

Provided that a Committee so appointed shall in no case be authorised to borrow money or to issue any precept for contributions, or to enter into any contract, and it shall be subject to the provisions of Part IV. of the First Schedule of the Local Government Act, 1894, so far as they are applicable.

## SECTION II.—LIMITS OF JURISDICTION.

ARTICLE 4.—The jurisdiction of the said Port Sanitary Authority shall extend to so much of the said Port of Cardiff as is comprised within the following lines, that is to say :—

A straight line drawn south from the seaward extremity of the common boundary of the parishes of Sully and Lavernock to the boundary of the said Port and a line following and coincident with the boundary of the said Port from its commencement at the River Rumney to the point at which the straight line firstly hereinbefore mentioned meets such boundary

together with the water of the said Port of Cardiff within such limits, and the place or places for the time being appointed as the Customs Boarding Station or Stations for such part of the said Port, and every other place for the time being appointed for the mooring or anchoring of ships for such part of the said Port under any regulations for the prevention of the spread of diseases issued under the authority of the Statutes in that behalf, and the docks, basins, harbours, creeks, rivers, channels, roads, bays, and streams belonging to such part of the said Port.

## SECTION III.—ASSIGNMENT OF POWERS, &c.

ARTICLE 5.—For the purpose of this Order the following Section of The Public Health Act, 1875, the Public Health (Officers) Act, 1884, the Public Health (Ships, &c.) Act, 1885, the Public Health (Members and Officers) Act, 1885, and the Public Health Acts Amendment Act, 1890, shall apply; and the Port Sanitary Authority shall have, exercise, perform, and be subject to, all the powers, rights, duties, capacities, liabilities, and obligations, of an Urban Sanitary Authority under the same Sections, so far as those Sections are applicable to waters within the jurisdiction of such Port Sanitary Authority, or to ships coming or being within the said jurisdiction, or to persons upon any such ship, or brought by any such ship within the said jurisdiction, or to goods or things upon any such ship, or to goods or things landed from any such ship, and being within the said jurisdiction, and which in the opinion of the said Authority or their Medical Officer of Health requires to be disinfected or destroyed, namely :

Of the Public Health Act, 1875 :—

Section 70, relating to Polluted Water.

Sections 11 to 111, both inclusive, relating to Nuisances.

Sections 120 to 123, both inclusive, relating to Infectious Diseases and Hospitals.

Sections 134 to 140, both inclusive, as to the prevention of Epidemic Diseases.

Sections 141 and 142, relating to Mortuaries.

Sections 173 and 174, relating to Contracts.

Sections 175, 176, and 177, relating to Purchase of Lands.

Sections 179, 180, and 181, relating to Arbitration.

Sections 182 to 186, both inclusive, and Section 188, relating to Bye-Laws.

Section 189 (except as regards the Offices of Surveyor and Collector),  
Sections 191 to 196, both inclusive, and Sections 197, 198, 205,  
and 206, relating to Officers and Conduct of Business of Local  
Authorities.

Sections 236 to 239, both inclusive, relating to Mortgages.

Sections 245, 247 (as amended by the District Auditors' Act, 1879), 249  
and 250, relating to Audit.

Section 241, and 253 to 258, both inclusive, and Section 269 (as  
amended by the Summary Jurisdiction Act, 1884), relating to Legal  
Proceedings.

Section 278, relating to Settlement of Disputes as to Boundaries.

Sections 299 to 302, both inclusive, relating to defaulting Local  
Authorities.

Sections 305 to 310, both inclusive, relating to miscellaneous Provisions.

Sections 327, 328, and 329 being Saving Clauses.

Of the Public Health (Officers) Act, 1884 :—

Section 2.

Of the Public Health (Ships, etc.) Act, 1885 :—

Section 2.

Of the Public Health (Members and Officers) Act, 1885 :—

Section 2.

Of the Public Healths Acts Amendment Act, 1890 :—

Section 3, so far as it enables an Urban Sanitary Authority to adopt  
Section 48.

Provided as follows :—

(1). Nothing herein contained shall affect the powers of any Riparian  
Authority except as to such waters, ships, persons and things as  
above mentioned.

(2). In this Article the term “ ship ” includes vessel or boat.

The Regulations of the Local Government Board prescribe, with regard to the  
Medical Officer of Health :—

“ That he shall prepare an annual report, to be made to the end of  
“ December in each year, comprising tabular statements so far as he  
“ shall have been able to obtain the necessary information, of the  
“ sickness and mortality of persons on ship-board within the District,  
“ classified according to diseases, ages, and vessels, and a summary  
“ of the action taken during the year for preventing the spread of  
“ disease. The report shall also contain an account of the proceedings  
“ in which he has taken part or advised under the Public Health Act,  
“ 1875, so far as such proceedings relate to conditions dangerous or  
“ injurious to health, and also an account of the supervision exercised  
“ by him, or on his advice, for sanitary purposes over places and  
“ vessels that the Port Sanitary Authority has power to regulate,  
“ with the nature and results of any proceedings which may have  
“ been so required and taken in respect of the same during the year.”

This report is therefore made in accordance with the above quoted regulations.

According to the Census enumeration made in April, 1901, the number of persons found on board foreign and coasting vessels, barges and boats in the docks, under the supervision of the Cardiff Port Sanitary Authority, was 2,147, and the number of vessels 235, giving an average of 9·1 persons per vessel. In most cases large numbers of sailors are paid off shortly after the vessel enters the dock, so that at the time of the census few complete crews would be on board. The number of persons given in the returns, does not, therefore, in any way represent the number actually belonging to the vessels.

The following table gives the area of the Docks within the district of the Cardiff Port Sanitary Authority.

|                                          | West Bute Dock.      | East Bute Dock.                                                   | Roath Dock.                                                  | Penarth Dock.                      | Penarth Tidal Harbour.                                  |                                          |
|------------------------------------------|----------------------|-------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------|---------------------------------------------------------|------------------------------------------|
| Width of sea gate                        | 45ft.                | 57ft.                                                             | 80ft.                                                        | 60½ft.                             |                                                         | Width of sea gate                        |
| Basin ...                                | 300ft. by 200ft.     | 380ft. by 250 ft.                                                 | 1,000ft. by 500ft.                                           | 400ft. by 330ft.                   |                                                         | Basin                                    |
| Lock ...                                 | 152ft. by 36ft.      | 220ft. by 57ft.<br>Sea lock.<br>200ft. by 50ft.<br>Inner lock.    | 350ft. x 80ft.<br>Sea lock.<br>600ft. x 80ft.<br>Inner lock. | 270ft. by 60½ft.                   |                                                         | Lock                                     |
| Dock ...                                 | 4,000ft. by 2,000ft. | 3,350ft. by 500ft.<br>1,000ft. by 300ft.<br>Total length 4,350ft. | 2,400ft. by 600ft.                                           | 2,100ft. 370ft.                    | First reach 4,600ft. x 600ft.<br>Total length 13,000ft. | Dock                                     |
| Depth of Water in Dock ...               | 19ft. and 13ft. 6in. | 25ft.                                                             | 30ft. & 36ft.                                                | 25ft. and 35ft.                    | First reach 30ft.                                       | Depth of water in Dock                   |
| Depth of Water on sill (spring tide)     | 28ft. 8½in.          | 31ft. 8½in.                                                       | 36ft.                                                        | 35ft.                              |                                                         | Depth of water on sill (spring tide)     |
| Do. do. (neap tide)                      | 18ft. 8½in.          | 21ft. 8½in.                                                       | 26ft.                                                        | 25ft.                              |                                                         | Do. do. (neap tide)                      |
| No. of coal staiths for shipment of coal | 12                   | 18                                                                | 12 tips & 11 coaling cranes.                                 | 21                                 | 9                                                       | No. of coal staiths for shipment of coal |
| Water area ...                           | 19½ acres of Dock.   | Basin, 3 acres.<br>Dock, 46¼ acres.                               | Basin, 12 acres.<br>Dock, 33 acres.                          | Basin, 3 acres.<br>Dock, 25 acres. |                                                         | Water area                               |

TABLE I.

| YEARS. | NUMBER OF VESSELS. |            | Total No.<br>of Vessels,<br>Foreign and<br>Coastwise. | TONNAGE.  |            | Total Tonnage<br>Foreign<br>and Coastwise<br>inwards. |
|--------|--------------------|------------|-------------------------------------------------------|-----------|------------|-------------------------------------------------------|
|        | Foreign.           | Coastwise. |                                                       | Foreign.  | Coastwise. |                                                       |
| 1882   | 6,032              | 7,026      | 13,058                                                | 2,151,761 | 940,836    | 4,435,293                                             |
| 1883   | 6,195              | 7,260      | 13,445                                                | 4,322,849 | 797,722    | 5,116,571                                             |
| 1884   | 6,184              | 6,823      | 13,007                                                | 4,513,117 | 785,462    | 5,298,597                                             |
| 1885   | 5,990              | 6,719      | 12,709                                                | 4,563,662 | 849,512    | 5,413,174                                             |
| 1886   | 5,390              | 6,742      | 12,132                                                | 4,174,950 | 931,503    | 5,106,453                                             |
| 1887   | 5,925              | 6,531      | 12,456                                                | 4,714,247 | 918,898    | 5,634,145                                             |
| 1888   | 6,179              | 7,095      | 13,274                                                | 5,148,068 | 935,694    | 6,083,762                                             |
| 1889   | 6,339              | 7,411      | 13,750                                                | 5,476,773 | 918,666    | 6,458,439                                             |
| 1890   | 4,099              | 9,672      | 13,771                                                | 3,196,973 | 3,952,759  | 7,149,632                                             |
| 1891   | 4,308              | 10,415     | 14,723                                                | 3,445,139 | 4,116,831  | 7,561,970                                             |
| 1892   | 3,447              | 8,770      | 12,217                                                | 2,548,522 | 2,532,527  | 5,081,149                                             |
| 1893   | 3,140              | 8,861      | 12,001                                                | 2,470,396 | 2,608,690  | 5,779,086                                             |
| 1894   | 3,224              | 10,543     | 13,767                                                | 2,668,418 | 3,122,661  | 5,791,079                                             |
| 1895   | 3,166              | 10,150     | 13,316                                                | 2,686,874 | 2,944,071  | 5,630,945                                             |
| 1896   | 3,104              | 9,652      | 12,755                                                | 3,019,591 | 3,034,855  | 6,054,445                                             |
| 1897   | 3,174              | 9,933      | 13,107                                                | 3,044,002 | 2,878,726  | 5,022,728                                             |
| 1898   | 2,415              | 7,771      | 10,186                                                | 1,979,709 | 2,343,806  | 4,923,515                                             |
| 1899   | 3,191              | 9,373      | 12,564                                                | 3,255,870 | 3,071,232  | 6,327,102                                             |
| 1900   | 3,212              | 8,858      | 12,070                                                | 3,127,985 | 2,850,479  | 5,978,464                                             |
| 1901   | 2,829              | 8,755      | 11,584                                                | 2,917,948 | 2,750,335  | 5,668,283                                             |
| 1902   | 2,763              | 9,337      | 12,100                                                | 2,729,563 | 2,953,915  | 5,683,478                                             |
| 1903   | 2,544              | 9,130      | 11,674                                                | 2,821,927 | 2,976,901  | 5,798,828                                             |
| 1904   | 2,370              | 8,635      | 11,005                                                | 2,563,188 | 3,178,989  | 5,742,177                                             |
| 1905   | 2,437              | 9,959      | 12,396                                                | 2,662,128 | 3,252,663  | 5,914,791                                             |

The power which the Port Sanitary Authority possesses for preventing the introduction and spread of infectious diseases is derived from the Public Health Acts, and Regulations made under the provisions of these Acts. The method of dealing with the ordinary infectious diseases which are more or less always present in the country, differs from that adopted in the case of those diseases which are essentially foreign exotic or tropical diseases, such as Cholera, Yellow Fever, and Plague. In the case of the former the proceedings are in accordance with Regulations, made pursuant to Section 125 of the Public Health Act, 1875, relating to the Removal to Hospital of Persons brought within the District of such authority (by any ship or boat) who are infected with a dangerous Infectious Disorder.

In May, 1904, a communication was received from the Local Government Board stating that they had under consideration a proposal by the Board of Customs to redefine the Customs Boarding Stations in the United Kingdom, with a view of preventing infected vessels from approaching the Docks and Quays at the various Ports, and of permitting all vessels not infected to proceed to their various places of discharge, and that for this purpose it would be necessary to revise the Regulations made under Section 125 of the Public Health Act, 1875.

In the month of July of that year a conference was held in Cardiff between representatives of the Port Sanitary Authority, of H.M. Customs, and of the Dock Authorities, and at which Dr. Reece, one of the Board's Medical Inspectors was present, and the Medical Officer of Health to the Cardiff Port Sanitary Authority.

Subsequently the Medical Officer of Health was instructed to prepare draft Regulations to be submitted to the Port Sanitary Authority. These were prepared after several conferences with the local Customs Officers, and with representatives of the Cardiff Chamber of Commerce, the Association of Shipowners, and the Dock Authorities. After some modifications to meet the views expressed at these conferences, a revised draft of the Regulations was submitted to the Local Government Board, and obtained their approval on the 11th December, 1905.

The Regulations now in force are as follows :—

1.—In these Regulations, the expression “The Port Sanitary Authority” means the Mayor, Aldermen and Burgesses of the Borough of Cardiff, acting by the Council, as the Port Sanitary Authority; the expression “The District” means so much of the Customs’ Port of Cardiff as, under an Order of the Local Government Board, dated the 15th day of September, 1894, is comprised within the jurisdiction of the Port Sanitary Authority; the expression “Ship” includes a Boat; the expression “Medical Officer of Health” includes any legally qualified Medical Practitioner lawfully authorised to act on behalf of such Officer; the expression “Dangerous Infectious Disorder” means any one of the following diseases :—

|                  |                              |                  |
|------------------|------------------------------|------------------|
| SMALL-POX.       | RELAPSING FEVER.             | TYPHOID FEVER.   |
| MEMBRANOUS CROUP | DIPHTHERIA.                  | CONTINUED FEVER. |
| TYPHUS FEVER.    | SCARLATINA OR SCARLET FEVER. |                  |

2.—These Regulations shall remain in force until they are revoked by the Port Sanitary Authority, or until fresh Regulations under Section 125 of the Public Health Act, 1875, are made by the Port Authority and approved of by the Local Government Board.

3.—Every Master or other person having charge of a ship arriving in the District with any person on board, whether a passenger or belonging to the ship’s crew, suffering from a dangerous infectious disorder, shall stop on arrival in any dock-basin, river, harbour, or canal within the District, and forthwith send notice to the Medical Officer of Health of the Port Sanitary Authority, stationed at his office at Cardiff, that there is a person on board suffering from such a disorder.

4.—The Master or other person in charge of the ship shall cause her to remain in any dock-basin, river, harbour, or canal within the District in which she shall have stopped on arrival, until the Medical Officer of Health has boarded her.

5.—The Medical Officer of Health, to whom notice is given either by the Master or person in charge of the ship, or by an Officer of the Port Sanitary Authority boarding the ship on its arrival that there is a person aboard suffering from a dangerous infectious disorder, shall as soon as practicable, visit the ship, and ascertain whether the person referred to in the notice is suffering from such a disorder, and if in the opinion of the Medical Officer of Health he is, and can properly be removed, and proper accommodation can be provided for him in the Hospital of the Port Sanitary Authority of Cardiff, or in some other Hospital to which the Port Sanitary Authority are entitled to remove patients, the Master or other person having charge of the ship shall forthwith cause such person to be removed to such Hospital, according to the directions of the Medical Officer of Health.

6.—If any dangerous infectious disorder shall break out on board any ship, arriving in the District, and after she has passed into any dock-basin, river, harbour, or canal, the Master or other person having charge of such ship shall give notice to the Medical Officer of Health of the Port Sanitary Authority at his Office at Cardiff, that there is on board a

person suffering from such disorder, and if, upon examination, the Medical Officer of Health shall find that he is so suffering, the Master or other person in charge of such ship shall forthwith cause such person to be removed to a Hospital to which the Port Sanitary Authority are entitled to remove patients, as directed by the Medical Officer of Health.

7—Every person who shall offend against any of the foregoing Regulations shall be liable for every such offence to a penalty of Forty Shillings.

In addition to the above, the Port Sanitary Authority has adopted the Infectious Disease Notification Act, 1889, which requires the notification to the Medical Officer of Health by Medical Practitioners of all cases of the ordinary Infectious Diseases coming under their care. In September, 1900, the Local Government Board, by order, extended the provisions of this Act to the notification of every case of Plague occurring in the district. Circular letters were sent by me to Medical Practitioners informing them of their duties in this respect.

The enclosed form is used by the Officers of the Sanitary Authority, who board every vessel, foreign or coastwise, immediately they enter the outer basin of the dock.

This form, which is filled up in writing by the Master or person in charge of the ship, is found to be a much more satisfactory way of obtaining information of sickness on board than the mere verbal statement which was previously required.

## MEDICAL CERTIFICATE TO CARDIFF PORT SANITARY AUTHORITY.

*To the Master of S.S.*.....  
*From what Port have you come?*.....  
*Number of Crew?*.....  
*Total Number of Passengers?* .....

*Has there been any Sickness of an infectious nature during the Voyage, or at the time of arrival, among either Crew or Passengers?*  
 .....

*If there has been Sickness of any sort, kindly state nature and result* .....

*Signed*.....*Surgeon.*

.....*Master.*

*Time of arrival*..... *Time of Visit*.....

*Date* .....

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From the above it will be seen that information of the existence of Infectious Diseases reaches the Medical Officer of Health from (1) the Master of the ship; (2) the Customs Officer on the arrival of the vessel at the Customs Boarding Station; (3) Medical Practitioners when called in to attend such cases; (4) Officer of Sanitary Authority during ordinary inspection of Shipping in docks, and during tidal inspection at entrance to dock basins.

Cholera, Yellow Fever, and Plague are dealt with under the General Order of the Local Government Board, dated 9th November, 1896, making Regulations under the powers given by Section 130 of the Public Health Act, 1875. Until the year 1896, Yellow Fever and Plague still nominally came within the Provisions of the Quarantine Acts, for which the Customs Officers were responsible, but in that year the Public Health Act, 1896, which repealed those Acts, was passed, and the duty of dealing with these diseases was transferred to the Sanitary Authority in accordance with the above-mentioned Regulations, which now include, therefore, Cholera, Yellow Fever, and Plague. Fresh Regulations were also necessary, as the Act of 1896 alters the maximum penalty from £50 (which was the maximum penalty in the old Cholera Regulations) to £100 for infringements of Regulations made under Section 130 of the Public Health Act, 1875.

The method of dealing with these diseases under the Regulations is as follows :—

In the first place, it is the duty of the Customs Officer on the arrival of any vessel from foreign ports to ascertain, so far as possible, whether such ship is infected with Cholera, Yellow Fever, or Plague, or has come from a port infected with them, and if he suspects that such is the case, he must require the master to moor or anchor her in such a position as he may direct, and during such detention no person other than those officers executing the order shall leave the ship. The Customs Officer is then to give immediate notice to the Sanitary Authority, and the vessel is to be visited by the Medical Officer of Health. The duty of the Customs Officer ceases when the Medical Officer of Health goes on board, which must take place within twelve hours after the ship is moored or anchored, otherwise the vessel is released from detention. Power is given to the Medical Officer of Health to visit any vessel which he may suspect to have come from an infected port, and which is coming, or is within the district of the Sanitary Authority, whether examined by the Customs Officer or not—that is, before she has arrived at the Customs' Boarding Station—and he is required to do so if he suspects the vessel to be infected. It is upon the power given under this section of the Order that the Medical Officer of Health has chiefly to rely for information concerning infection of shipping during the prevalence of Cholera or Plague on the Continent of Europe, more particularly as in the case of ports situated like Cardiff, in which the Customs Boarding Station is inside the Dock Gates. However, if by any of these means the Medical Officer of Health finds that the vessel is infected, he acts as follows :—After certifying that the vessel is infected he hands a copy of the certificate to the master or pilot, who is required to anchor or moor her at a place already fixed upon by the Sanitary Authority with the approval of H.M. Customs, and called the Mooring Station. At the Mooring Station the vessel is now dealt with, not by being placed in quarantine, but the infected person or persons suspected to be infected are removed to a hospital, or some suitable place, which by the Regulations must be provided by the Sanitary Authority for this purpose, and the vessel is disinfected and all requirements of the Order carried out before leaving the Mooring Station. If necessary, the bilge water or ballast water must be pumped out, provided the stability of the vessel is not endangered, and the tanks containing drinking water may be emptied and cleansed, and a fresh supply provided by the Sanitary Authority. No person is permitted to land from an infected ship unless he satisfy the Medical Officer of Health as to his name, intended place of destination and intended address at such place, such particulars being forwarded by the Clerk to the Local Authority of the district.

By an Amending Order of the Local Government Board dated 22nd December, 1902, it was provided that “The Master of every ship infected with Cholera, Yellow Fever, or Plague, shall, when the ship is within three miles of the coast of any part of England or Wales, or is within the limits of a port, cause to be hoisted—

- (1) At the masthead or where it can be best seen, during the whole of the time between sunrise and sunset, a day signal, consisting of a large flag of yellow and black borne quarterly, or
- (2) At the peak or any other conspicuous place where it can be best seen, and at a height of not less than twenty feet above the hull of the ship, during the whole of the time between sunset and sunrise, a night signal, consisting of three lights, which shall be arranged at a distance of not less than six feet apart, in the forms of an equilateral triangle, and of which the light at the apex of the triangle shall be white, and the other lights at the ends of the base of the triangle shall be red in colour."

The Mooring Station for infected vessels is situated in the Penarth Roads, within a short distance of the Flat Holm Island, and to the Hospital on this Island all persons suffering from Cholera, Yellow Fever or Plague on board any vessel in the district would at once be removed. This Hospital consists of one pavilion, containing two wards and nurses' rooms, bathrooms, lavatories, etc. Each ward contains six beds.

In addition to and adjoining the above there is a small ward with four beds, formerly used for Cholera patients, making altogether permanent accommodation for sixteen patients. At the same time there is ample space on the island for the erection of temporary Hospital accommodation, such as tents, huts, etc., should this be required at any time.

The Caretakers reside in a house adjoining the Hospital, belonging to the Port Sanitary Authority, and which is used when required for administrative purposes. A very complete laundry is attached to the buildings, and a crematorium for the destruction by burning of the bodies of persons dying in the Hospital.

An arrangement exists between some other Port Sanitary Authorities and Cardiff in connection with the hospital accommodation on the Flat Holm Island as follows:—

The Bristol Port Sanitary Authority have the use, on payment of fees, of the Crematorium on the Island for the cremation of bodies of persons dying of cholera, yellow fever, or plague within their district.

The Cardiff Port Sanitary Authority have agreed to receive into their hospital on the Flat Holm Island, and to provide all necessary treatment and food for patients sent to the hospital from the district of the Newport Sanitary Authority, and to cremate the bodies of any such patients who may die in the hospital, on payment of £40 per annum, and £3 3s. per week for the first Newport patient received into the hospital and £2 2s. per week for every additional patient, and the sum of £7 7s. in respect of the cremation of every body of any such patient dying in the hospital.

An agreement exists between the Port Sanitary Authorities of Cardiff and Barry of a similar character to that between Cardiff and Newport.

By agreement also the Bridgwater Port Sanitary Authority are entitled to send patients into the Cardiff Hospital on payment of an annual sum of £20, and of sums for the maintenance of patients similar to the other Authorities.

The following extract shows the position of the Customs Boarding Stations within the district of the Cardiff Port Sanitary Authority.

### PORT OF CARDIFF.

Extract from List of Customs Boarding Stations, with General Order <sup>15</sup>/<sub>1896</sub>.

Glamorganshire Canal, outside Sea Lock.  
 East Bute Dock Basin.  
 West Bute Dock Basin.  
 Roath Basin.  
 Penarth Dock Basin.  
 Penarth Tidal Harbour.

During the year 1904 a short Act of Parliament was passed to enable the Local Government Board to make Regulations for carrying into effect conventions with respect to the prevention of danger arising to public health from vessels, and the prevention of the conveyance of infection by means of vessels.

This Act, the Public Health Act 1904, contains the following provisions:—

Sec. I.—The power of making regulations under the Public Health Act, 1896, and the enactments mentioned in that Act, shall include the power of making regulations authorising measures to be taken for the prevention of danger arising to public health from vessels arriving at any port, and for the prevention of the conveyance of infection by means of any vessel sailing from any port, so far as may be necessary or expedient for the purpose of carrying out any treaty, convention, arrangement, or engagement with any foreign country, and the regulations may in particular provide for the recovery of any expenses incurred in disinfection and of any charges authorised to be made by the regulations for the purpose of those regulations or any services performed thereunder, and also for any powers and duties under the regulations being executed and performed by local authorities :

Provided that the regulations shall not be made except after consultation with the Board of Trade.

## INFECTIOUS DISEASES.

**TYPHOID FEVER.**—On the 11th May, the Medical Superintendent of the Seamen's Hospital notified to me a case of typhoid fever. A. R., age 24 years, a seaman, on board the French barque "Duplex," lying in Penarth Dock, had been attending as an out-patient for some time. On the 9th May he was detained at the Hospital, and subsequently developed typhoid fever, and on the 11th was removed to the Sanatorium. The crew spaces were disinfected, and the patient's effects, together with a quantity of bedding, etc., from the Hospital, were removed for disinfection, and the water tanks on board the ship were emptied and cleansed.

On the 15th May, the Medical Superintendent of the Seamen's Hospital notified to me a case of typhoid fever. O. A., age 18 years, a seaman on board the Norwegian s.s. "Botnia," lying in the Roath Dock, was admitted into the Hospital on the 12th May, and developed typhoid fever on the 15th. He was forthwith removed to the Sanatorium. The crew spaces were disinfected, the water tanks emptied and cleansed, and the patient's effects, together with a quantity of bedding, etc., from the Hospital, were removed for disinfection.

On the 7th September, the Medical Superintendent of the Seamen's Hospital notified to me a case of typhoid fever. A. L., age 22 years, late cook on board the s.s. "Shandon," was admitted on the 1st September, and developed typhoid fever on the 6th. He was forthwith removed to the Sanatorium. His effects, together with a quantity of bedding, etc., from the Hospital, were removed for disinfection.

On the 16th October, W. E., age 18 years, third mate of the Dutch s.s. "Veerhaven," from Rotterdam, was admitted into the Seamen's Hospital, and on the 20th the Medical Superintendent notified to me that the patient was suffering from typhoid fever. He was forthwith removed to the Sanatorium. His effects, together with a quantity of bedding, etc., from the Hospital, were removed for disinfection. The vessel had sailed previous to receiving notification.

**MEASLES.**—On the 13th July, a fireman, on board the Spanish s.s. "Ollargan," from Bilbao, lying in the Roath Dock, was found to be suffering from measles. He was isolated from the rest of the crew, and recovered before the vessel left the Port. No other case of sickness occurred on board.

**SMALL POX.**—On the 27th October, I examined H. L., age 19 years, a fireman on board the Norwegian s.s. "Haugesund," lying in the Roath Basin, from Almeria and Bristol, and found that he was suffering from modified small pox. He was forthwith removed to the Small Pox Hospital. The vessel was disinfected, and a quantity of clothing was destroyed, the remainder were removed for disinfection. The crew refused vaccination. No other case of sickness occurred on board.

**ERYSIPELAS.**—On the 27th November, the Medical Superintendent of the Seamen's Hospital notified a case of erysipelas. W. B., age 18 years, a

seaman on board the ketch "Theodore," from Bristol, lying in the East Bute Dock, was admitted the previous day. After his recovery the ward was disinfected, and the bedding, etc., was removed for disinfection.

**CHOLERA, YELLOW FEVER, AND PLAGUE.**—During the year 111 vessels entered the Port from infected or suspected Ports, and were dealt with in accordance with the Local Government Board Regulations of November, 1896.

On the 4th September the Local Government Board issued a circular letter to Port Sanitary Authorities stating "That cases of Cholera had recently occurred in some of the Baltic and North Sea Ports, and advising these Authorities to be on their guard against the importation of Cholera by means of vessels from these Ports, and that in the event of these Ports being declared infected, it will be the duty of the Port Sanitary Authority to act in accordance with the Cholera Order of the 9th November, 1896."

Acting upon the contents of this letter, special attention has been paid to the inspection of vessels from these Ports, each vessel being medically inspected on arrival at the Dock Basin, during the day and night tides. Your Committee visited the Hospital on the Flat Holm Island, and found everything in readiness for the reception of patients.

No cases or suspected cases of Cholera, Yellow Fever or Plague were brought into the Port.

A systematic method of destroying rats on board vessels from infected or suspected Ports has been carried out by rat-catchers engaged by the Sanitary Authority, and by fumigation of sulphurous acid gas. Altogether about 2,831 rats were destroyed. When caught in traps they were drowned, and subsequently burned.

During the year 5 patients have been admitted into the Hospital for Infectious Diseases belonging to the Cardiff Urban Sanitary Authority. The following table is a statement of cases and their issue, supplied to me by Dr. B. W. Broad, the Resident Medical Superintendent.

TABLE II.

| Date<br>of Admittance.<br>1905. | DISEASE.          | Cases<br>Admitted. | RESULT.    |       |                                |
|---------------------------------|-------------------|--------------------|------------|-------|--------------------------------|
|                                 |                   |                    | Recovered. | Died. | In Hospital at<br>End of Year. |
| May 11th ...                    | Typhoid Fever ... | 1                  | 1          | ...   | ...                            |
| „ 15th ...                      | „ „               | 1                  | ...        | 1     | ...                            |
| Sept. 7th ...                   | „ „               | 1                  | 1          | ...   | ...                            |
| Oct 20th ...                    | „ „               | 1                  | ...        | 1     | ...                            |
| „ 27th ...                      | Small Pox ...     | 1                  | 1          | ...   | ...                            |
|                                 | TOTAL ...         | 5                  | 3          | 2     | ...                            |

The following table gives the number of vessels boarded during the year ending 31st December, 1905, by the Medical Officer of Health and by the Inspectors on account of disease on board during the voyage, or at the time of arrival in the district of the Cardiff Port Sanitary Authority.

TABLE III.

| DATE<br>1905 | TIME.     | NAME OF SHIP. | NATION-<br>ALITY. | WHERE FROM.                  | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|-----------|---------------|-------------------|------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Jan. 19      | 5 30 a.m. | s.s. Torridge | British           | Bassin, Colombo, and Hamburg | Cholera                | The Master reported on arrival that eight cases of Cholera occurred on board on the passage from Bassin to Colombo between the 26th October and 4th November, 1904. Four of the cases proved fatal, one on board on the 4th, and three in Hospital at Colombo on the 8th November. The vessel was disinfected, a large quantity of clothing destroyed, and the water tanks were emptied and cleansed by the Authorities at that Port. The crew were examined by the Medical Officer of Health on arrival here and found all well.                                         |
| " 31         | 5.15 a.m. | s.s. Altamira | Spanish           | Bilbao and Boulogne          | Influenza              | E. G., age 25 years, Seaman, was examined on arrival by the Medical Officer of Health, and was found to be suffering from influenza. He was forthwith removed to the Seamen's Hospital.                                                                                                                                                                                                                                                                                                                                                                                   |
| Feb. 17      | 4.0 p.m.  | s.s. Ribston  | British           | Buenos Ayres and Cork        | Malarial Fever         | The Master reported on arrival having sent four of his crew to Hospital at Cork suffering from malarial fever. All well on arrival at this Port.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| March 21     | 8.0 a.m.  | Sorata        | Norwegian         | Haapai, Azores, and Passages | Beri Beri              | The Master reported on arrival that nine cases of beri beri occurred on board (after leaving Haapai) between 27th November and 7th December, 1904. Eight of the crew, including the Master and Officers, were sent to Hospital at Punta del Agade on the 16th January, 1905. The crew were examined on arrival by the Medical Officer of Health and found all well. The vessel was disinfected, and samples of the drinking water was submitted for bacteriological examination and analysis which proved to be highly contaminated. The tanks were emptied and cleansed. |
| " 22         | 8 0 p.m.  | Daggry        | Norwegian         | Aruba and Cork               | Tonsillitis            | One of the crew was examined on arrival by the Medical Officer of Health and was found to be suffering from tonsillitis. He was removed to the Seamen's Hospital. Subsequently another Seaman was found ill with the same complaint. He was medically treated on board.                                                                                                                                                                                                                                                                                                   |

TABLE III.—Continued.

| DATE<br>1905 | TIME.         | NAME OF SHIP.       | NATION-<br>ALITY. | WHERE FROM.                 | NATURE OF<br>SICKNESS.         | REMARKS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------|---------------|---------------------|-------------------|-----------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April 16     | 4.40 a.m.     | s.s. Whitby ..      | British ..        | Rosario,<br>via Dunkirk     | Typhoid and<br>Malarial Fevers | The Master reported having landed three cases of typhoid fever at St. Vincent (C.V.) on the 24th March, viz:—R. G. V., 25 years of age, Second Mate; G. G., 22, and J. H., 21 years of age, respectively, Seamen. J. A., 43 years of age, fireman, was sent to Hospital on arrival at Dunkirk, April 7th, suffering from malarial fever. The crew were examined on arrival at this Port by the Medical Officer of Health, and found all well except the Master, who was suffering from the after-effects of malarial fever. The vessel was disinfected and the water tanks were emptied and cleansed. |
| "            | 17 5 p.m. ..  | s.s. Shandon ..     | British ..        | Galveston ..<br>via Hamburg | Malarial Fever                 | The Master reported on arrival that two of the crew had been left in Hospital at Hamburg, suffering from malarial fever and rheumatism, respectively.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| May 9        | 9.15 a.m.     | s.s. Thorndale      | British ..        | Buenos Ayres<br>via Antwerp | Phthisis ..                    | The Master reported on arrival that one of the crew (a Lascar) was ill on board. Upon examination by the Medical Officer of Health, the patient was found to be suffering from phthisis. He was forthwith removed to the Scamen's Hospital, and died in a few days after his admission. The crew spaces, etc., were disinfected and cleansed.                                                                                                                                                                                                                                                         |
| "            | 11 8.30 p.m.  | Duplex ..           | French ..         | Cork ..                     | Typhoid Fever                  | A. R., a Seaman, belonging to the Barque "Duplex," was admitted into the Seamen's Hospital on the 9th May, and developed typhoid fever on the 11th—having previously been attending the Hospital as an out-patient. He was forthwith removed to the Sanatorium. The crew spaces were disinfected, and the water tanks were emptied and cleansed.                                                                                                                                                                                                                                                      |
| "            | 12 12.30 p.m. | s.s. Amiral<br>Aube | French ..         | Buenos Ayres                | Phthisis ..                    | The Master reported on arrival that A. M., 46 years of age, a passenger, was suffering from phthisis, and was attended to by the Ship's Doctor.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

TABLE III.—Continued.

| DATE<br>1905 | TIME.       | NAME OF SHIP.     | NATION-<br>ALITY. | WHERE FROM.                 | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                          |
|--------------|-------------|-------------------|-------------------|-----------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| July 7       | 10 a.m. . . | s.s. Garonne . .  | Belgian . .       | London                      | Gastritis              | One of the crew was examined on arrival by the Medical Officer of Health, and was found to be suffering from gastritis. He was medically treated on board.                                                                                                                                        |
| " 13         | 11 a.m. . . | s.s. Ollargan . . | Spanish . .       | Bilbao                      | Measles                | P. G., age 24 years (donkeyman), was examined by the Medical Officer of Health, and was found to be suffering from measles, having contracted the disease at Bilbao. He was isolated from the rest of the crew, and recovered before the steamer left the Port. No other case occurred on board.  |
| " 18         | 6.45 p.m.   | s.s. Cornucopia   | British           | River Plate and King's Lynn | Typhoid Fever          | The Master reported on arrival that S. S., age 40 years, a fireman, was sent to Hospital at Monte Video, on the 1st May, suffering from typhoid fever. The forecastle was disinfected, and the water tanks were emptied and cleansed.                                                             |
| " 23         | 10.30 p.m.  | s.s. Mount Oswald | British           | Bahia Blanca and Hamburg    | Typhoid Fever          | The Master reported on arrival that A. K., age 23 years, a fireman, was sent to Hospital at Bahia Blanca, on the 12th May, he died on the 17th from typhoid fever. His effects were disinfected at this Port, and were returned to the Board of Trade, the water tanks were emptied and cleansed. |
| Aug. 10      | 3.15 p.m.   | Dorotea           | Spanish . .       | Aruba and Antwerp           | Abcess                 | The Master was reported ill on arrival, and upon examination it was found that he was suffering from a large subcutaneous abcess at back of neck. The patient died the following day. The cabin was disinfected and cleansed, and a quantity of bedding, etc., was destroyed.                     |
| " 19         | 8.40 p.m.   | Tug Oceana . .    | British . .       | Sumatra                     | Malarial Fever         | The Master reported on arrival that several of the crew had suffered more or less from malarial fever on the passage home, all well on arrival at this port. The water tanks were emptied and cleansed, and a fresh supply of water taken on board.                                               |

TABLE III.—Continued.

| DATE<br>1905 | TIME.     | NAME OF SHIP.         | NATION<br>ALITY. | WHERE FROM.                            | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                                                                                    |
|--------------|-----------|-----------------------|------------------|----------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aug. 26      | 4.30 p.m. | s.s. Baron<br>Driesen | Russian ..       | Odessa and<br>Rotterdam                | Influenza ..           | The Master reported on arrival that five of the crew were ill on board. Upon examination by the Medical Officer of Health, it was found that they were suffering more or less from influenza, and complications. Two of the patients were removed to the Seamen's Hospital, and the others were treated on board.                                           |
| " 30         | 7 a.m.    | s.s. Rossetti ..      | British ..       | Gaza via Gib-<br>raltar and<br>Dunkirk | Gastric Fever          | The Master reported on arrival that C. B., age 35 years, bo's'n, was sent to Hospital at Gibraltar on the 10th August, suffering from gastric fever. His berth was disinfected, and the water tanks were emptied and cleansed.                                                                                                                              |
| Sept. 2      | 8 a.m.    | s.s. Aeolus ..        | Greek ..         | Taganrog and<br>Hamburg                | Gastric Fever          | The Master reported on arrival that D. V., age 19 years, a fireman, was sent to Hospital at Hamburg, on the 27th August, suffering from gastric fever. The forecastle was disinfected by the crew, and the water tanks were emptied and cleansed at this Port.                                                                                              |
| " 2          | 9 a.m.    | s.s. Bravo ..         | Spanish ..       | Lisbon and<br>London                   | Pneumonia ..           | The Master reported on arrival that J. L., age 24 years, a seaman, was ill on board. Upon examination by the Medical Officer of Health, it was found that the patient was suffering from pneumonia. He was forthwith removed to the Seamen's Hospital.                                                                                                      |
| " 7          | —         | s.s. Shandon ..       | British ..       | Antwerp ..                             | Typhoid Fever          | A. L., age 22 years, late cook of s.s. "Shandon," was admitted into the Seamen's Hospital on the 1st September, and on the 7th the Medical Superintendent notified that the patient was suffering from typhoid fever. He was forthwith removed to the Sanatorium. His effects, together with some bedding from the Hospital, were removed for disinfection. |

TABLE III.—*continued.*

| DATE<br>1905 | TIME.      | NAME OF SHIP.   | NATION-<br>ALITY. | WHERE FROM.             | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|------------|-----------------|-------------------|-------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct. 1       | 8 p.m. . . | s.s. Cid . .    | Spanish           | Almeria and<br>London   | Small Pox . .          | J.P., late Master, was removed to Hospital at London, on the 19th September, suffering from small pox. The vessel was disinfectcd by the Authorities at that Port, and most of the crew were vaccinated. No other case of sickness occurred on board up to the time of sailing from this Port.                                                                                                                                               |
| " 3          | 10.40 a.m. | s.s. Edinburgh  | British . .       | Bilbao . .              | Appendicitis.          | W.P., Master, was reported ill on arrival. Upon examination it was found that he was suffering from appendicitis, and was forthwith removed to his home.                                                                                                                                                                                                                                                                                     |
| " 10         | 6.20 a.m.  | s.s. Selma . .  | British . .       | Rotterdam . .           | Typhoid Fever          | The Master reported on arrival that D. McD., seaman, was removed to Hospital at Dartmouth, September 9th, suffering from typhoid fever. The forecastles and water tanks were cleansed at this Port.                                                                                                                                                                                                                                          |
| " 13         | 7.20 p.m.  | s.s. Rose Lea   | British           | Mobile and<br>Dublin    | Malarial Fever         | The Master reported on arrival that several of the crew had been suffering from malarial fever on the passage to Dublin. The forecastles and water tanks were cleansed at this Port.                                                                                                                                                                                                                                                         |
| " 20         | —          | s.s. Veerhaven  | Dutch . .         | Rotterdam . .           | Typhoid Fever          | W. S., aged 19 years, Third Mate, was taken ill on the 15th October some days after the vessel arrived in this Port. He was admitted into the Seamen's Hospital on the 16th, and on the 20th developed typhoid fever. The patient was forthwith removed to the Sanatorium, and his effects, together with a quantity of bedding, etc., at the Hospital, were removed for disinfection. The vessel sailed previous to receiving notification. |
| " 20         | —          | s.s. Idar . .   | British . .       | Galveston and<br>Dublin | Beri Beri . .          | Several of the crew (Lascars), were ill more or less during the vessel's stay in this Port; two of the patients were suffering from beri beri. They were medically treated on board. The crew spaces were disinfected and a fresh supply of drinking water was obtained.                                                                                                                                                                     |
| " 25         | 2.45 p.m.  | s.s. Simoom . . | British . .       | Copenhagen . .          | —                      | R. C. C. (late Master) died at sea on the 21st instant. His body was landed at this Port. An inquest was held, and a verdict of death from natural causes was returned.                                                                                                                                                                                                                                                                      |

TABLE III.—*continued.*

| DATE<br>1905 | TIME.         | NAME OF SHIP.       | NATION-<br>ALITY. | WHERE FROM.                | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------|---------------|---------------------|-------------------|----------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct. 26      | 1 p.m. ..     | s.s. Haugesund      | Norwegian         | Almeria and<br>Bristol     | Small Pox ..           | H. L., aged 18 years, Fireman, was taken ill on the 26th (two days after the vessel's arrival in this Port) and the following day he was removed to the Small Pox Hospital. The vessel was disinfected, and some articles of clothing were destroyed. The crew refused vaccination. No other cases of sickness occurred on board.                                                                                       |
| Nov. 15      | 9 p.m. ..     | s.s. Cairnmore      | British ..        | Foreados and<br>Rotterdam  | Malarial Fever         | The Master reported on arrival that several of the crew had been suffering from malarial fever during the voyage. The water tanks were emptied and cleansed, and the crew spaces were disinfected.                                                                                                                                                                                                                      |
| "            | 15 6.45 p.m.  | s.s. Ashmore ..     | British ..        | River Plate<br>and Hamburg |                        | Owing to the existence of Plague amongst some dead rats found on board, the Authorities at Hamburg had the vessel disinfected and limewashed throughout, and the water tanks emptied and cleansed. The crew were examined on arrival at this Port by the Medical Officer of Health. Rat catchers were engaged during the vessel's stay in the Port, and the crew were kept under observation up to the time of sailing. |
| "            | 17 9.30 p.m.  | s.s. Cornelia ..    | British ..        | Oporto ..                  | Tonsillitis ..         | D. J. (Consul passenger) had been in Hospital at Oporto suffering from tonsillitis.                                                                                                                                                                                                                                                                                                                                     |
| "            | 21 11.30 a.m. | s.s. Boynton ..     | British ..        | Novorossisk<br>and Wyborg  | Typhoid Fever          | The Master reported on arrival that W. B., aged 26 years, Second Engineer, was sent to Hospital at Wyborg, on the 9th instant suffering from typhoid fever. His berth was disinfected, and the water tanks were emptied and cleansed.                                                                                                                                                                                   |
| "            | 21 2 p.m. ..  | s.s. Howick<br>Hall | British ..        | Poti and<br>Liverpool      | Beri Beri ..           | The Master reported, on arrival, that two of the crew (Lascars) were sent to Hospital at Liverpool, suffering from beri beri; two other members of the crew were medically attended to during the vessel's stay in this Port suffering from the same disease. The crew spaces were disinfected and cleansed, and fresh supply of drinking water taken on board.                                                         |

TABLE III.—*continued.*

| DATE<br>1905 | TIME.     | NAME OF SHIP.    | NATION-<br>ALITY. | WHERE FROM.                                      | NATURE OF<br>SICKNESS. | REMARKS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|-----------|------------------|-------------------|--------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nov. 22      | 2 a.m.    | s.s. Scarthoe .. | British ..        | Wilmington<br>and Bremen                         | Malarial Fever         | The Master reported on arrival that several of the crew had been suffering from malarial fever during the voyage. The water tanks were emptied and cleansed at this Port.                                                                                                                                                                                                                                                                                                                                   |
| " 27         | —         | Theodore ..      | British ..        | Avonmouth ..                                     | Erysipelas ..          | W. B., 18 years of age, Seaman, was admitted into the Seamen's Hospital on the 26th instant, and on the 27th the Medical Superintendent notified the case to be erysipelas. After the patient's recovery the ward at the Hospital was disinfected, and all the bedding, etc., were removed for disinfection. The crew space on board the "Theodore" was also disinfected, and some articles of clothing destroyed.                                                                                          |
| Dec. 8       | 6.25 a.m. | s.s. Amana ..    | British ..        | Poti and<br>Rotterdam                            | Dysentery ..           | The Master reported on arrival that two of the crew had been left in Hospital at Rotterdam suffering from dysentery. A sample of the drinking water on board was found on analysis to be contaminated. The tanks were emptied and cleansed at this Port.                                                                                                                                                                                                                                                    |
| " 11         | 7 p.m.    | s.s. Telena ..   | British ..        | Singapore, <i>via</i><br>Durban and<br>Rotterdam | Beri Beri ..           | The Master reported on arrival the death at sea of two Chinese Firemen on the 16th and 22nd November respectively, from beri beri. Two other members of the crew were medically treated on board during the vessel's stay in this Port, suffering from the same disease. The crew spaces were disinfected and cleansed, and a fresh supply of water was obtained.                                                                                                                                           |
| " 20         | 1 a.m.    | s.s. Kilbride .. | British ..        | Karachi ..                                       | Suspected<br>Plague    | M. D., 35 years of age, Fireman, was taken ill on the 1st December, with swelling in the right groin. On arrival at Suez, December 4th, the patient was removed to "Moses Well" Hospital, as suspected case of plague. The vessel was disinfected by the Authorities at Suez. The crew were examined on arrival at this Port by the Medical Officer of Health. The water tanks were emptied and cleansed, and a fresh supply of water was obtained. Rat catchers were engaged to destroy all rats on board. |

INSPECTION OF SHIPPING.—During the year 1905, eight thousand one hundred and sixteen vessels were inspected, six thousand eight hundred and forty-seven were found in a fair or good condition, and one thousand two hundred sixty-nine in a more or less defective or insanitary state.

One hundred and eighty-four written notices were served, one thousand one hundred and fifty-eight verbal orders were given, and one hundred and forty-nine letters were sent to Owners and others at various Ports.

Four thousand seven hundred and sixty-one extra inspections were made of work in hand and ships in docks.

The systematic inspection of shipping in the Bute and Penarth Docks was efficiently performed by the Chief Inspector, David Jenkins, and by the Assistant Inspectors, S. J. Holbourn, D. A. Jenkins, J. J. Williams, J. Davies, and A. J. Scott.

The following is a summary of the routine duty of the staff of the Medical Officer of Health :—

(1) PENARTH DOCK, ELY HARBOUR AND WINDSOR SLIPWAYS.—Two inspectors, one by day and one by night alternately (every week), from half-tide until the Gates are closed, and all the vessels boarded. All vessels are boarded on arrival, whether from Foreign or Coastwise, and enquiries made as to the health of the crew, and if there is or has been any sickness on the voyage, a copy of regulations as to Infectious Diseases is handed to every Master. In addition to tide work, the Inspector on day duty also visits and examines the ships in Dock, etc.

(2) ROATH BASIN AND CHANNEL DRY DOCK.—One Inspector on duty from four hours flood on each tide until the Gates are closed, and all vessels boarded and examined in the same manner as No. 1.

EAST AND WEST BASINS, MOUNT STUART DRY DOCKS AND CANAL.—One Inspector on duty from four hours flood until the Gates are closed, and all vessels boarded and examined in the same manner as Nos. 1 and 2.

The Chief Inspector supervises the work and assists Inspections, and carries out statutory duties in accordance with “ Order ” of Local Government Board dated 19th July, 1883.

In addition to the above one Inspector is on day work examining ships in Dock, etc.

The duties are arranged at the Cardiff Docks thus :—Each Inspector has two weeks on tide and one week day work, and every third Sunday off duty.

The average time on tide duties are as follows :—

Penarth Dock—Six and half hours.

Roath Basin—Four and half hours.

East and West Basins.—Four hours.

The annexed tables will afford evidence of useful work performed by the Officers of the Port Sanitary Authority, and will show that the Inspection of Shipping in the Port has resulted in a great improvement in the sanitary condition of the floating population.

The chief defects found on board ships were :—Defective ventilation, impure water supply, defective bulkheads, defective drainage or water-closet accommodation, leaky decks, unlined iron decks, and direct communication between men’s berths and water-closets.

As a rule, very little difficulty was experienced in obtaining compliance with the requirements of the Inspector.

Shipowners and Masters willingly carry out the recommendations of the Port Sanitary Authority, with the result that the proportion of vessels having sanitary defects amongst those which frequent this Port has decreased in a most marked manner.

The following table shows the number of vessels, foreign and coastwise, inspected during the year :—

TABLE IV.

|                             |   |               |     |     | NUMBER<br>INSPECTED. | NUMBER<br>DEFECTIVE. | NUMBER OF<br>ORDERS ISSUED. |
|-----------------------------|---|---------------|-----|-----|----------------------|----------------------|-----------------------------|
| FOREIGN                     | { | Steamships    | ... | ... | 2,094                | 471                  | 471                         |
|                             |   | Sailing Ships | ... | ... | 277                  | 120                  | 120                         |
|                             |   | Fishing       | ... | ... | 2                    | —                    | —                           |
|                             |   |               |     |     | 2,373                | 591                  | 591                         |
| COASTWISE                   | { | Steamships    | ... | ... | 4,027                | 492                  | 492                         |
|                             |   | Sailing Ships | ... | ... | 1,254                | 169                  | 169                         |
|                             |   | Fishing       | ... | ... | 462                  | 17                   | 17                          |
|                             |   |               |     |     | 5,743                | 678                  | 678                         |
| Total Foreign and Coastwise |   |               |     |     | 8,116                | 1,269                | 1,269                       |

The following table shows the number and nationalities of the vessels inspected during the year

TABLE V.

| NATIONALITY.             | STEAM. | SAIL. | TOTAL<br>STEAM<br>AND SAIL. |
|--------------------------|--------|-------|-----------------------------|
| American .. .. .         | 5      | ..    | 5                           |
| Argentine .. .. .        | 3      | ..    | 3                           |
| Austrian .. .. .         | 69     | 1     | 70                          |
| Belgian .. .. .          | 16     | ..    | 16                          |
| Brazilian .. .. .        | 1      | ..    | 1                           |
| British .. .. .          | 5,380  | 1,198 | 6,578                       |
| British American .. .. . | ..     | 1     | 1                           |
| Chilian .. .. .          | 1      | ..    | 1                           |
| Danish .. .. .           | 57     | 18    | 75                          |
| Dutch .. .. .            | 56     | 4     | 60                          |
| French .. .. .           | 117    | 164   | 281                         |
| German .. .. .           | 111    | 38    | 149                         |
| Greek .. .. .            | 55     | ..    | 55                          |
| Honduras .. .. .         | 2      | ..    | 2                           |
| Italian .. .. .          | 92     | 12    | 104                         |
| Norwegian .. .. .        | 277    | 67    | 344                         |
| Portuguese .. .. .       | ..     | 2     | 2                           |
| Roumanian .. .. .        | 1      | ..    | 1                           |
| Russian .. .. .          | 26     | 20    | 46                          |
| Spanish .. .. .          | 227    | 12    | 239                         |
| Swedish .. .. .          | 73     | 7     | 80                          |
| Uruguayan .. .. .        | 3      | ..    | 3                           |
| Totals ..                | 6,572  | 1,544 | 8,116                       |

During the year the forecastles, berths, water-closets, etc., in 442 British ships and 224 Foreign ships respectively, have either been cleansed, painted, or time-washed.

The following table shows their nationality :—

TABLE VI.

|                    |     |
|--------------------|-----|
| Argentine .. .. .  | 1   |
| Austrian .. .. .   | 11  |
| British .. .. .    | 442 |
| Danish .. .. .     | 8   |
| Dutch .. .. .      | 4   |
| French .. .. .     | 68  |
| German .. .. .     | 11  |
| Greek .. .. .      | 5   |
| Italian .. .. .    | 14  |
| Norwegian .. .. .  | 28  |
| Portuguese .. .. . | 1   |
| Russian .. .. .    | 7   |
| Spanish .. .. .    | 56  |
| Swedish .. .. .    | 10  |
| Total ..           | 666 |

The following table shows the number and nationalities of the vessels on which nuisances or structural defects were detected :—

TABLE VII.

| NATIONALITY. |     | Number of Ships. | Defective side ports and prisms. | Defective water closets. | Defective bulkheads and floors in crew's spaces. | Defective and leaky lavase pipes and cable casings. | Defective or unlined iron decks over berths. | Defective stoves, funnels and flanges in crew's spaces. | Defective ventilation. | Defective ventilation to deck water closets. | Dirty water casks and tanks. | Defective water casks and tanks. | Defective lamps. | Defective lighting. | Defective cowls and ventilators in crew's spaces. | Defective drainage. | Leaky decks over berths. | Foul bilges and peaks. | Ship's stores kept in crew's spaces. | Foul accumulations. | Water closets and paint lockers adjoining and ventilating into crew's spaces. | Want of wood floor in crew's spaces. | CASES. | REMEDIED. |
|--------------|-----|------------------|----------------------------------|--------------------------|--------------------------------------------------|-----------------------------------------------------|----------------------------------------------|---------------------------------------------------------|------------------------|----------------------------------------------|------------------------------|----------------------------------|------------------|---------------------|---------------------------------------------------|---------------------|--------------------------|------------------------|--------------------------------------|---------------------|-------------------------------------------------------------------------------|--------------------------------------|--------|-----------|
| Argentine    | ... | 3                | ...                              | 1                        | ...                                              | ...                                                 | 1                                            | ...                                                     | ...                    | 1                                            | ...                          | ...                              | 1                | ...                 | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 4      | 4         |
| Austrian     | ... | 10               | 12                               | 1                        | ...                                              | 1                                                   | 2                                            | 2                                                       | ...                    | ...                                          | 3                            | ...                              | 1                | ...                 | 1                                                 | ...                 | 1                        | ...                    | ...                                  | 3                   | ...                                                                           | ...                                  | 27     | 25        |
| Belgian      | ... | 2                | 1                                | ...                      | ...                                              | ...                                                 | ...                                          | ...                                                     | 1                      | 1                                            | ...                          | ...                              | ...              | ...                 | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 3      | 2         |
| Brazilian    | ... | 1                | 5                                | ...                      | ...                                              | ...                                                 | ...                                          | ...                                                     | ...                    | ...                                          | ...                          | ...                              | ...              | ...                 | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 5      | 5         |
| British      | ... | 469              | 545                              | 41                       | 23                                               | 69                                                  | 22                                           | 89                                                      | 9                      | 38                                           | 69                           | 6                                | 30               | 31                  | 25                                                | 24                  | 41                       | 6                      | 31                                   | 15                  | 2                                                                             | 2                                    | 1118   | 1086      |
| Danish       | ... | 12               | 4                                | 2                        | ...                                              | ...                                                 | 5                                            | ...                                                     | 1                      | 6                                            | 12                           | ...                              | ...              | 1                   | 1                                                 | 1                   | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 33     | 30        |
| Dutch        | ... | 3                | 1                                | ...                      | ...                                              | ...                                                 | 1                                            | ...                                                     | ...                    | ...                                          | ...                          | ...                              | 1                | ...                 | ...                                               | 1                   | 1                        | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 5      | 5         |
| French       | ... | 73               | 14                               | 3                        | 2                                                | ...                                                 | ...                                          | 3                                                       | 3                      | 7                                            | 13                           | ...                              | 37               | 17                  | ...                                               | ...                 | 1                        | ...                    | 10                                   | 2                   | ...                                                                           | ...                                  | 112    | 108       |
| German       | ... | 19               | 5                                | 1                        | ...                                              | 1                                                   | ...                                          | 2                                                       | 3                      | 12                                           | 4                            | ...                              | 1                | 4                   | ...                                               | 1                   | 3                        | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 37     | 33        |
| Greek        | ... | 6                | 11                               | 1                        | ...                                              | 1                                                   | 1                                            | ...                                                     | ...                    | 1                                            | 2                            | ...                              | ...              | ...                 | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 17     | 16        |
| Honduras     | ... | 1                | 2                                | ...                      | ...                                              | ...                                                 | ...                                          | 1                                                       | ...                    | ...                                          | ...                          | ...                              | ...              | ...                 | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 3      | 3         |
| Italian      | ... | 17               | 3                                | 1                        | 3                                                | 1                                                   | 1                                            | 2                                                       | 6                      | 4                                            | 7                            | ...                              | 2                | 1                   | ...                                               | 1                   | 1                        | ...                    | 2                                    | 2                   | ...                                                                           | ...                                  | 37     | 34        |
| Norwegian    | ... | 62               | 15                               | 6                        | 3                                                | 4                                                   | ...                                          | 6                                                       | 20                     | 25                                           | 10                           | ...                              | ...              | 11                  | ...                                               | 2                   | 4                        | ...                    | 1                                    | 1                   | ...                                                                           | ...                                  | 107    | 91        |
| Portuguese   | ... | 2                | ...                              | ...                      | ...                                              | ...                                                 | ...                                          | 1                                                       | ...                    | ...                                          | ...                          | 1                                | ...              | 2                   | ...                                               | ...                 | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 4      | 4         |
| Russian      | ... | 18               | ...                              | 3                        | 1                                                | 1                                                   | ...                                          | 1                                                       | 5                      | 9                                            | ...                          | ...                              | 2                | 5                   | ...                                               | 2                   | ...                      | ...                    | ...                                  | 1                   | ...                                                                           | ...                                  | 30     | 30        |
| Spanish      | ... | 69               | 54                               | 9                        | 11                                               | 4                                                   | 23                                           | 4                                                       | 3                      | 5                                            | ...                          | 23                               | 8                | 8                   | 2                                                 | 1                   | ...                      | 6                      | ...                                  | ...                 | ...                                                                           | ...                                  | 161    | 142       |
| Swedish      | ... | 12               | 7                                | 1                        | 4                                                | ...                                                 | 1                                            | ...                                                     | 2                      | 4                                            | ...                          | ...                              | 1                | ...                 | 1                                                 | 2                   | 1                        | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 24     | 21        |
| Uruguayan    | ... | 3                | 4                                | 1                        | ...                                              | 1                                                   | ...                                          | ...                                                     | ...                    | ...                                          | ...                          | ...                              | ...              | ...                 | 4                                                 | 1                   | ...                      | ...                    | ...                                  | ...                 | ...                                                                           | ...                                  | 11     | 7         |
|              |     | 782              | 683                              | 71                       | 36                                               | 90                                                  | 38                                           | 130                                                     | 54                     | 111                                          | 125                          | 7                                | 99               | 80                  | 40                                                | 37                  | 54                       | 64                     | 9                                    | 24                  | 2                                                                             | 2                                    | 1738   | 1646      |

## CARDIFF AND COUNTY PUBLIC HEALTH LABORATORY.

*Bacteriological Examination of Water Supply.*

The following table gives the results of the examination by Dr. H. A. Schölberg of sixty-six samples of drinking water from vessels entering the Port during the year ending December 31st, 1905 :—

TABLE VIII.

| DATE.<br>1905. | NAME OF SHIP.          | WATER OBTAINED<br>FROM       | RESULT OF EXAMINATION.<br>MICRO-ORGANISMS per c.c.           |
|----------------|------------------------|------------------------------|--------------------------------------------------------------|
| Jan. 3rd ...   | s.s. "Sarah Radcliffe" | Constantinople ...           | 30,000 per c.c. at 37° C., liquified at 20° C. Impure.       |
| " 6th ...      | "Ingeborg" ...         | Natal and Geelong            | 5,280 per c.c. at 37° C., 5,120 per c.c. at 20° C. Impure.   |
| " 6th ...      | "Limena"               | Talcahuano ...               | 6,800 per c.c. at 37° C., 1,920 per c.c. at 20° C. Impure.   |
| " 12th ...     | s.s. "Garnet" ...      | Oporto ...                   | 5,800 per c.c. at 37° C., Gas and Acid. Impure.              |
| " 12th ...     | s.s. "Carrisbrook"     | River Plate ...              | 6,000 per c.c. at 37° C., Gas and Acid. Impure.              |
| " 24th ...     | s.s. "Verbena" ...     | Constantinople and Algiers   | 400 per c.c. at 37° C., 500 per c.c. at 20° C. Fair.         |
| " 25th ...     | s.s. "Laura" ...       | River Plate and Las Palmas   | 3,060 per c.c. at 37° C., 980 per c.c. at 20° C. Impure.     |
| " 26th ...     | s.s. "Powis" ...       | Naples and Gibraltar         | 150 per c.c. at 37° C., 4,080 per c.c. at 20° C. Impure.     |
| " 26th ...     | "Cromdale" ...         | Melbourne ...                | 1,400 per c.c. at 37° C., 5,920 per c.c. at 20° C. Impure.   |
| " 30th ...     | "Lord Shaftesbury"     | Sydney (N.S.W.)              | Nil at 37° C., 4,000 per c.c. at 20° C. Fair.                |
| Feb. 20th ...  | s.s. "Ruperra" ...     | Karachi & Algiers            | 880 per c.c. at 37° C., 70 per c.c. at 20° C. Impure.        |
| " 28th ...     | ss. "Italian Prince"   | Karachi & Algiers            | 800 per c.c. at 37° C., 60 per c.c. at 20° C. Fair.          |
| " 28th ...     | "Signe" ...            | Rosario ...                  | 720 per c.c. at 37° C., 1,280 per c.c. at 20° C. Impure.     |
| Mar. 7th ...   | s.s. "Gogovale"...     | Sydney and Port Said         | 8,640 per c.c. at 37° C., 5,120 per c.c. at 20° C. Impure.   |
| " 7th ...      | s.s. "Tolosa" ...      | Bilbao & Goteborg            | 40 per c.c. at 37° C., 14 per c.c. at 20° C. Good.           |
| " 8th ...      | s.s. "Therese Heymanu" | River Plate ...              | 21,600 per c.c. at 37° C., 5,680 per c.c. at 20° C. Impure.  |
| " 8th ...      | "Peru" ...             | Tacoma ...                   | 33,600 per c.c. at 37° C., 46,000 per c.c. at 20° C. Impure. |
| " 18th ...     | s.s. "Siward" ...      | Karachi and Port Said        | 1,640 per c.c. at 37° C., 920 per c.c. at 20° C. Impure.     |
| " 18th ...     | "Queen Victoria"       | Sydney (N.S.W.)              | 30 per c.c. at 37° C., 20 per c.c. at 20° C. Good.           |
| " 20th ...     | "Orion" ...            | Melbourne ...                | 960 per c.c. at 37° C., 880 per c.c. at 20° C. Fair          |
| " 20th ...     | s.s. "Westow" ...      | Constantinople and Gibraltar | 80 per c.c. at 37° C., 1,000 per c.c. at 20° C. Fair.        |
| " 21st ...     | "Isabel Browne"        | Melbourne ...                | 10 per c.c. at 37° C., 10 per c.c. at 20° C. Good.           |
| " 21st ...     | "Sorata" ...           | Passages (Spain)...          | 1,230 per c.c. at 37° C., liquified at 20° C. Impure.        |

TABLE VIII.—*continued.*

| DATE<br>1905. | NAME OF SHIPS.            | WATER OBTAINED<br>FROM               | RESULT OF EXAMINATION.<br>MICRO-ORGANISMS per c.c.                  |
|---------------|---------------------------|--------------------------------------|---------------------------------------------------------------------|
| Mar. 22nd...  | "Kildalton" ...           | Tacoma ...                           | 680 per c.c. at 37° C., 250 per c.c. at 20° C. Fair.                |
| ,, 23rd ...   | "Sorata" ...              | Haapai ...                           | 480 per c.c. at 37° C., liquified at 20° C. Impure.                 |
| April 4th .   | s.s. "Selby" ...          | Rosario and<br>Las Palmas            | 1,330 per c.c. at 37° C., liquified at 20° C. Impure.               |
| ,, 11th ...   | s.s. "New Orleans"        | Natal and Stettin                    | 310 per c.c. at 37° C., 270 per c.c. at 20° C. Fair                 |
| ,, 13th ...   | s.s. "Chas. T.<br>Jones"  | Constantinople ...                   | 150 per c.c. at 37° C., 600 per c.c. at 20° C. Fair.                |
| July 10th...  | s.s. "Nethermoor"         | Constantinople ...                   | 20 per c.c. at 37° C., 40 per c.c. at 20° C. Good.                  |
| ,, 22nd...    | "Inverurie" ...           | Melbourne ...                        | 40 per c.c. at 37° C., 60 per c.c. at 20° C. Fair.                  |
| ,, 25th...    | "Anna Maria<br>d' Abundo" | River Plate ...                      | 3,200 per c.c. at 37° C., Gas and Acid. Impure.                     |
| Aug. 3rd...   | s.s. "Westergate"         | Bilbao ...                           | 360 per c.c. at 37° C., B. Coli in $\frac{1}{2}$ and 2 c.c. Impure. |
| ,, 11th...    | "Saint Amme" ...          | Port Victoria ...                    | 398 per c.c. at 37° C., B. Coli in $\frac{1}{2}$ only. Fair.        |
| ,, 24th...    | "Maren" ...               | Adelaide ...                         | 230 per c.c. at 37° C., 2,880 per c.c. at 20° C. Good.              |
| Sept. 13th... | s.s. "Tyne" ...           | Rio Janeiro and<br>Santos            | 3,600 per c.c. at 37° C., Gas and Acid. Impure.                     |
| ,, 13th...    | s.s. "Tyne" ...           | Pernambuco and<br>River Plate        | 90 per c.c. at 37° C., Gas and Acid. Fair.                          |
| ,, 23rd...    | s.s. "Melobesia"          | River Plate ...                      | Too numerous to count at 37° C. Impure.                             |
| ,, 23rd...    | s.s. "Dorothy" ...        | Constantinople ...                   | 5,000 per c.c. at 37° C. Impure.                                    |
| ,, 27th...    | s.s. "Gangeren"...        | Oporto ...                           | 120 per c.c. at 37° C., Gas and Acid. Impure.                       |
| ,, 27th...    | s.s. "Bathori" ...        | Constantinople ...                   | Too many to count at 37° C., Gas and Acid. Impure.                  |
| ,, 29th...    | s.s. "Dongola" ...        | Stettin ...                          | 950 per c.c. at 37° C., Gas and Acid. Impure.                       |
| ,, 30th...    | s.s. "Manoussis"          | Constantinople ...                   | 1,040 per c.c. at 37° C., Gas and Acid. Impure.                     |
| Oct. 11th...  | s.s. "Rowtor" ...         | Constantinople ...                   | 120 per c.c. at 37° C., 80 per c.c. at 20° C. Impure.               |
| ,, 11th...    | s.s. "Martin" ...         | Constantinople<br>and Bilbao         | 720 per c.c. at 37° C., 3,020 per c.c. at 20° C. Impure.            |
| ,, 13th...    | "Erminia" ...             | Melbourne ...                        | 4,020 per c.c. at 37° C., 2,240 per c.c. at 20° C. Fair.            |
| ,, 17th...    | s.s. "Briardene"          | Gilles Port ...                      | 1,620 per c.c. at 37° C., 11,000 per c.c. at 20° C. Impure.         |
| ,, 18th...    | s.s. "Consols" ...        | River Plate ...                      | 620 per c.c. at 37° C. Impure.                                      |
| ,, 20th...    | s.s. "Idar" ...           | Havre ...                            | 1,720 per c.c. at 37° C. Fair.                                      |
| ,, 25th...    | "Wanja" ...               | Rio Janeiro<br>and Havre             | 120 per c.c. at 37° C. Fair.                                        |
| ,, 25th...    | "Amete" ...               | Rio Janeiro, Havre<br>and Rain water | 6,400 per c.c. at 37° C. Impure.                                    |

TABLE VIII.—*continued.*

| DATE<br>1905 | NAME OF SHIPS.      | WATER OBTAINED<br>FROM           | RESULT OF EXAMINATION.<br>MICRO-ORGANISMS per c.c.              |
|--------------|---------------------|----------------------------------|-----------------------------------------------------------------|
| Oct. 26th... | "N.S. del Rosario"  | Melbourne and<br>Monte Video     | 320 per c.c. at 37° C. Fair.                                    |
| „ 31st...    | s.s. "Speranza"...  | River Plate and<br>Antwerp       | 20 per c.c. at 37° C. Fair.                                     |
| Nov. 1st...  | s.s. "Kirkwall"...  | Barry and<br>Constantinople      | 960 per c.c. at 37° C. Impure.                                  |
| „ 10th...    | s.s. "M'g't Jones"  | Constantinople ...               | 660 per c.c. at 37° C. Impure.                                  |
| „ 13th...    | s.s. "Iser" ...     | Constantinople ...               | 5,120 per c.c. at 37° C. Impure.                                |
| „ 22nd...    | s.s. "Scarthoe" ... | Philadelphia ...                 | Gas and Acid fermentation. Impure.                              |
| „ 25th       | "Dorothea" ...      | Jamaica and Riga                 | 280 per c.c. at 37° C. Fair.                                    |
| „ 28th...    | "s.s. "Ardoe" ...   | River Plate ...                  | 6,400 per c.c. at 37° C. Impure.                                |
| „ 29th...    | s.s. "Mickley" ...  | River Plate ...                  | 290 per c.c. at 37° C. Fair.                                    |
| Dec. 1st...  | s.s. "Enterprise"   | Constantinople<br>and Algiers    | 120 per c.c. at 37° C., Gas and Acid<br>fermentation. Impure.   |
| „ 1st...     | "Dalcarnie" ...     | Adelaide and<br>Port Pirie       | 1,560 per c.c. at 37° C., Gas and<br>Acid fermentation. Impure. |
| „ 5th...     | s.s. "Trefusis" ... | Constantinople ...               | 3,220 per c.c. at 37° C., Gas and<br>Acid fermentation. Impure. |
| „ 8th...     | s.s. "Amana" ...    | Poti and Algiers...              | 560 per c.c. at 37° C., Gas and Acid<br>fermentation. Impure.   |
| „ 9th...     | s.s. "Leven" ...    | Marseilles and<br>Constantinople | 70 per c.c. at 37° C. Good.                                     |
| „ 13th...    | s.s. "Astarlao" ... | River Plate ...                  | 9,280 per c.c. at 37° C., Gas and<br>Acid fermentation. Impure. |
| „ 20th...    | s.s. "Kilbride" ... | Port Said ...                    | 6,400 per c.c. at 37° C., Gas and<br>Acid fermentation. Impure. |

## IMPORTATION OF FROZEN MEAT.

From the enclosed table it will be seen that the frozen meat trade is, in the Port, a large and important industry, and the due inspection of such meat forms an important part of the duty of the Inspectors. In each case the ship carrying the meat was inspected and notice of the destination of the cargo forwarded to the Inspector of Nuisances of the Urban Sanitary Authority, who visits the refrigerators and provision shops.

In this way the meat is kept, as far as possible, under supervision until the time of sale. Altogether twenty cargoes of frozen meat arrived in this Port during the year.

The following table shows the quantity of frozen meat that has been landed at the Port during the year ending 31st December, 1905:—

TABLE IX.

| Date.<br>1905. | Name of Ship.        | Where from. | BEEF.             |                   | MUTTON.  |                   |        |                |                 |        |          | Lambs. | Hearts<br>(Boxes<br>and<br>Bags). | Sundries<br>(Cases) |        |
|----------------|----------------------|-------------|-------------------|-------------------|----------|-------------------|--------|----------------|-----------------|--------|----------|--------|-----------------------------------|---------------------|--------|
|                |                      |             | Fore<br>Quarters. | Hind<br>Quarters. | Carcases | Half<br>Carcases. | Sides. | Hamm-<br>ches. | Should-<br>ers. | Legs.  | Quarters |        |                                   |                     | Loins. |
| Jan. 8         | s.s. Pardo           | ...         | 3,450             | ...               | 5,500    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | 180                 | 2,000  |
| " 19           | s.s. Cordilleras     | ...         | ...               | 1,175             | 9,047    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | 750    |
| Feb. 26        | s.s. Zuleika         | ...         | 700               | 700               | 6,200    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Mar. 17        | s.s. Amiral Courbett | ...         | 1,500             | 1,000             | 8,320    | 875               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 20           | s.s. Zone            | ...         | ...               | ...               | 4,000    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| May 2          | s.s. Thorpe Grange   | ...         | 850               | 600               | 5,000    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 10           | s.s. Zero            | ...         | 100               | 275               | 1,850    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 12           | s.s. Amiral Aube     | ...         | 1,200             | 800               | 10,751   | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 29           | s.s. Zuleika         | ...         | 300               | 500               | 8,620    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| June 12        | s.s. Zone            | ...         | 150               | 250               | ...      | 276               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| July 1         | s.s. Amiral Baudin   | ...         | 1,000             | 2,000             | 8,100    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Aug. 2         | s.s. Campinas        | ...         | ...               | 2,000             | 6,894    | 1,000             | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 10           | s.s. Zero            | ...         | 686               | ...               | 2,242    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 18           | s.s. Star of Ireland | ...         | ...               | 115               | 3,305    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Sep. 13        | s.s. Zone            | ...         | 775               | 1,000             | 6,250    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 28           | s.s. Cordilleras     | ...         | 1,000             | 1,000             | 8,371    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Oct. 17        | s.s. Amiral Baudin   | ...         | 1,800             | 1,200             | 8,681    | 500               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Nov. 6         | s.s. Zero            | ...         | ...               | 550               | 2,400    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| " 16           | s.s. Zuleika         | ...         | ...               | 1,600             | 6,000    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
| Dec. 7         | s.s. Campinas        | ...         | 1,000             | 1,000             | 7,181    | ...               | ...    | ...            | ...             | ...    | ...      | ...    | ...                               | ...                 | ...    |
|                | Total                | ...         | 14,511            | 15,765            | 118,712  | 2,651             | 2,000  | 14,400         | 2,254           | 23,500 | 13,010   | 4,968  | 1,417                             | 7,194               |        |

The following table shows the Number of (live) Oxen and Sheep that have been landed at this Port during the year ending December 31st, 1905, and which were slaughtered at the Foreign Animals' Wharf at the Docks :—

TABLE X.

| Date—1905.   | Name of Ship.                  | Where from.   | No. of Cattle. | No. of Sheep. |
|--------------|--------------------------------|---------------|----------------|---------------|
| January 8th  | ... s.s. "Lord Charlemont" ... | Baltimore ... | 204            | 604           |
| February 3rd | ... s.s. "Lord Iveagh" ...     | Baltimore ... | 237            | 600           |
| March 6th    | ... s.s. "Lord Charlemont" ... | Baltimore ... | 204            | 596           |
| March 27th   | ... s.s. "Lord Iveagh" ...     | Baltimore ... | 236            | 550           |
| April 30th   | ... s.s. "Lord Charlemont" ... | Baltimore ... | 195            | 530           |
|              |                                | Total ...     | 1,076          | 2,880         |

I have the honour to be, Gentlemen,

Your obedient Servant,

EDWARD WALFORD,

*Medical Officer of Health for the Cardiff Port Sanitary District.*